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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,054	04/14/2004	Eric Lawrence Barsness	ROC920030052US1	6100
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IBM CORPORATION ROCHESTER IP LAW DEPT. 917 3605 HIGHWAY 52 NORTH ROCHESTER, MN 55901-7829			NGUYEN, CINDY	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/824,054	<b>Applicant(s)</b> BARSNESS ET AL.	
	<b>Examiner</b> CINDY NGUYEN	<b>Art Unit</b> 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-9, 23-26 and 28-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-9, 23-26 and 28-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 02/23/09 has been entered.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 33 recites the limitation "a tangible computer-readable media". There is insufficient antecedent basis for this limitation in the claim. The Examiner suggests amending claim 33 include "a computer-readable storage medium".

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 6-9, 23-26 and 28-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Friedland et al. (US 7386465, hereafter Friedland).

Regarding claim 6, Friedland discloses: A computer implemented method for managing access to the computer resources, the method comprising:

(a) defining a respective valuation of each of a plurality of work items to be processed by one or more data processing systems (i.e., Entities with avariable attributes may be defined qualitatively through nominal, graphical and/or symbolic... col. 9, lines 54-62, Friedland);

(b)comparing the respective valuation of each respective said work item to a respective cost of accessing additional computer resources necessary to process the work item in a current time period (i.e., comparison for monitoring, measuring and evaluating

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see col. 10, lines 19-39, Friedland); and

(c) with respect to each said work item for which the respective valuation of each the work item exceeds the respective cost of accessing additional computer resources necessary to process the work item in the current time period, dynamically accessing additional computer resources necessary to process the work item in the current time period (i.e., computer operations/processes performed by the computer implemented resource allocation model to dynamically and optimally schedule an arbitrary number of resources subject to an arbitrary number of constraints ... see col. 14, lines 56-65; col. 151-13, Friedland);

(d) with respect to each said work item for which the respective valuation of the work item does not exceed the respective cost of accessing additional computer resources necessary to process the work item in the current time period, deferring processing of the work item to a subsequent time period (i.e., resources are not assigned to a task if the assignment violates their end of shift constraint... time is then incremented to the time of the next event... see col. 15, lines 18-28, Friedland); and

(e) repeating said (b) through (d) in one or more subsequent time periods with respect to each said work item deferred by said (d) until each said work item has been processed (see col. 15, lines 20-29, Friedland).

Regarding claim 23, Thompson discloses A method of providing fee-based processing for programs in a processor system, whereby fees are based on utilization of computer resources for completing processing a program, the processor system including at least one processor (see col. 11, lines 60-66); a memory coupled to the at least one processor, and a scheduling manager residing in the memory (see col. 11, lines 60-66; col. 12, lines 53-56), the method comprising the steps of:

(a) defining a respective valuation of each of a plurality of programs to be processed (i.e., Entities with avariable attributes may be defined qualitatively through nominal, graphical and/or symbolic... col. 9, lines 54-62, Friedland);

(b) comparing the respective valuation of each respective said program to a respective projected fee for utilization of computer resources to process said program in a current time (i.e., comparison for monitoring, measuring and evaluating real time opearionsl data and operational performance in the context of managmnent... see col. 10, lines 19-39; col. 16, 37-43, Friedland);

(c) with respect to each said program for which the respective valuation of the program exceeds the respective projected fee for utilization of computer resources to process the program in the current time period, dynamically accessing computer resources to be applied to a process the program in the current time period (i.e., computer operations/processes performed by the computer implemented resource allocation model to dynamically and optimally schedule an arbitrary number of resources subject to an arbitrary number of constraints ... see col. 14, lines 56-65; col. 15, lines 1-13, Friedland);

(d) with respect to each said program for which the respective valuation of the program does not exceed the respective projected fee for utilization of computer resources to process the program in the current time period, deferring processing of the program to a subsequent time period (i.e., resources are not assigned to a task if the assignment violates their end of shift constraint... time is then incremented to the time of the next event... see col. 15, lines 18-28; col. 17, lines 38-47, Friedland); and

(e) repeating said (b) through (d) in one or more subsequent time periods with respect to each said program deferred by said (d) until each said program has been processed (see col. 15, lines 20-29, Friedland).; and

(f) assessing a fee for the dynamically accessed computer resources to be used (see col. 16, lines 9-15; col. 19, lines 41-46, Friedland).

Regarding claim 29, Friedland discloses: An apparatus and a networks environment comprising:

at least one processor (see col. 11, lines 60-66);

a memory coupled to the at least one processor (see col. 11, lines 60-66; col. 12, lines 53-56); and

a scheduling manager residing in the memory and executable on the at least one processor see col. 13, lines 49-54), the scheduling manager dynamically managing access of each of a plurality of work items to additional computer resources other than the at least one processor for processing the respective work item, each said work item having a respective valuation (i.e., comparison for monitoring, measuring and evaluating

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see col. 10, lines 19-39; col. 16, 37-43, Friedland);

wherein said scheduling manager (see col. 40-47), in each of a plurality of time periods, compares the respective valuation of each unprocessed work item to a respective cost of accessing said additional computer resources to process the work item in the respective time period, and with respect to each said work item for which the respective valuation exceeds the respective cost of accessing the additional computer resources to process the work item in the respective time period, dynamically accesses the additional computer resources to process the work item in the respective time period (i.e., computer operations/processes performed by the computer implemented resource allocation model to dynamically and optimally schedule an arbitrary number of resources subject to an arbitrary number of constraints ... see col. 14, lines 56-65; col. 15, lines 1-13, Friedland); and

with respect to each said work item for which the respective valuation does not exceed the respective cost of accessing the additional computer resources to process the work item in the respective time period, defers processing of the work time to a subsequent time period (i.e., resources are not assigned to a task if the assignment violates their end of shift constraint... time is then incremented to the time of the next event... see col. 15, lines 18-28; col. 17, lines 38-47, Friedland).

Regarding claim 33, A program product comprising:

a scheduling manager embodied as a plurality of computer-executable instructions



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recorded on tangible computer-readable media (see col. 12, lines 39-41, Friedland), wherein said scheduling manager (see col. 13, lines 49-52; col. 14, lines 55-65), when executed by a computer system, instructions cause the computer system to:

(a) compare a respective defined valuation of each of a plurality of work items to be processed by the computer system to a respective cost of accessing additional computer resources necessary to process the work item in a current time period (i.e., comparison for monitoring, measuring and evaluating real time operations data and operational performance in the context of management... see col. 10, lines 19-39; col. 16, 37-43, Friedland);

(b) with respect to each said work item for which the respective valuation of the work item exceeds the respective cost of accessing additional computer resources necessary to process the work item in the current time period, dynamically accesses additional computer resources necessary to process the work item in the current time period (i.e., computer operations/processes performed by the computer implemented resource allocation model to dynamically and optimally schedule an arbitrary number of resources subject to an arbitrary number of constraints ... see col. 14, lines 56-65; col. 15, lines 1-13, Friedland);

(c) with respect to each said work item for which the respective valuation of the work item does not exceed the respective cost of accessing additional computer resources necessary to process the work item in the current time period, defers processing of the work item to a subsequent time period (i.e., resources are not assigned to a task if the assignment violates their end of shift constraint... time is then incremented

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to the time of the next event... see col. 15, lines 18-28; col. 17, lines 38-47, Friedland);  
and

(d) repeats said (a) through (c) in one or more subsequent time periods with respect to each said work item deferred by said (c) until each said work item has been processed (see col. 15, lines 20-29, Friedland).

Regarding claim 37, all the limitation of this claim has been noted in rejection of claim 29, In addition, Friedland discloses: a grid of computing resources (see col. 9, lines 4-12, Friedland);

a request manager of the grid to receive requests of one or more customers for utilization of computing resources of the grid (see col. 13, lines 13-20);

one or more computer systems of a customer coupled to the request manager; the one computer system comprising one or more processors (see col. 12, lines 54-57, Friedland).

Regarding claim 41, Friedland discloses: A computer-implemented method for managing access to computer resources, the method comprising:

(a) providing a plurality of work items for processing by one or more data processing systems in a current time period, each work item having a respective valuation (i.e., Entities with avariable attributes may be defined qualitatively through nominal, graphical and/or symbolic... col. 9, lines 54-62, Friedland);

(b) selecting a first subset of said plurality of work items for processing by a first data processing system in the current time period according to said valuations (see col. 13, lines 49-63, Friedland);

(c) with respect to each said work item not included in said first subset, comparing the respective valuation of the work item to a respective cost of accessing additional computer resources external to said first data processing system to process the work item in the current time period (see col. 14, lines 44-54, Friedland);

(d) with respect to each said work item not included in said first subset for which the respective valuation of the work item exceeds the respective cost of accessing additional computer resources external to said first data processing system to process the work item in the current time period, dynamically accessing additional computer resources external to said first data processing system to process the work item in the current time period (i.e., computer operations/processes performed by the computer implemented resource allocation model to dynamically and optimally schedule an arbitrary number of resources subject to an arbitrary number of constraints ... see col. 14, lines 56-65; col. 15, lines 1-13, Friedland);

(e) with respect to each said work item not included in said first subset for which the respective valuation of the work item does not exceed the respective cost of accessing additional computer resources external to said first data processing system to process the work item in the current time period, deferring processing of the work item to a subsequent time period (i.e., resources are not assigned to a task if the assignment violates their end of shift constraint... time is then incremented to the time of the next event... see col. 15, lines 18-28; col. 17, lines 38-47, Friedland); and

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(f) repeating said (a) through (e) in multiple time periods, wherein any work item deferred by (e) is included in the plurality of work items of each subsequent time period until the work item is processed, and wherein for at least some time periods, the first subset of the respective plurality of work items includes fewer than all of the respective plurality of work items (see col. 15, lines 20-29; col. 17, lines 37-47, Friedland).

Regarding claims 7, 21, 24, 30, 34 and 38, all the limitations of these claims have been noted in the rejection of claims 6, 20 and 23, 29 and 37 above, respectively. In addition, Friedland discloses: wherein the scheduling manager applies a valuation heuristic to each work item (see col. 10, lines 40-47, Friedland) .

Regarding claims 8, 22 and 25, 31, 35, 39 and 42, all the limitations of these claims have been noted in the rejection of claims 6, 20 and 24, 29, 33, 37 and 41 above, respectively. In addition, Friedland discloses: further comprising applying a priority algorithm for preventing starvation of computer resources to those work items which have been delayed, whereby the processing of all the work items in a program is completed (see col. 9, lines 18-24; col. 21-29, Friedland).

Regarding claims 9, 32, 36 and 40 and , all the limitations of this claim have been noted in the rejection of claims 7, 29, 33 and 37 above, respectively. In addition, Friedland discloses: wherein the priority algorithm increases respective valuations of

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delayed work items so as to complete processing of each of the work items prior to or at a cut-off processing date of the work item (see col. 15, lines 14-29, Friedland ).

Regarding claim 26, all the limitations of this claim have been noted in the rejection of claim 25 above. In addition, Friedland discloses: wherein the dynamic determination is based on different attributes of the one or more work items forming at least part of a program (see col. 13, lines 49-61, Friedland).

Regarding claim 28, all the limitations of this claim have been noted in the rejection of claim 6 above. In addition, Friedland discloses: wherein said method is used in a networked environment including a grid of computing resources, and a request manager of the grid to receive requests of one or more customers for utilization of computing resources of the grid (see col. 9, lines 4-12; col. 13, lines 13-20; col. 12, lines 53-56, Friedland);

wherein said additional computer resources comprise computing resources of said grid of computing resources wherein one or more computer systems of a customer is coupled to the request manager and include one or more processors (see col. 13, lines 13-20; col. 12, lines 53-56, Friedland);

a memory coupled to at least the one processor (see col. 12, lines 40-41); and,

a scheduling manager residing in the memory and executable by the at least the one processor (see col. 13, lines 49-62, Friedland).

Regarding claim 43, all the limitations of this claim have been noted in the rejection of claim 41 above. In addition, Friedland discloses: wherein said method is used in a networked environment including a grid of computing resources (see col. 9, lines 4-24; col. 13, lines 13-20; col. 12, lines 53-56, Friedland), and a request manager of the grid to receive requests of one or more customers for utilization of computing resources of the grid (see col. 9, lines 4-12; col. 13, lines 13-20; col. 12, lines 53-56, Friedland); wherein said additional computer resources comprise computing resources of said grid of computing resources (see col. 9, lines 4-12; col. 13, lines 13-20; col. 12, lines 53-56, Friedland)

#### Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CINDY NGUYEN whose telephone number is (571)272-4025. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. N./  
Examiner, Art Unit 2161

/Apu M Mofiz/  
Supervisory Patent Examiner, Art Unit 2161